



JOHN HUNTER;

HIS LIFE AND WORKS.

THE INTRODUCTORY LECTURE OF THE SESSION,

1854-55,

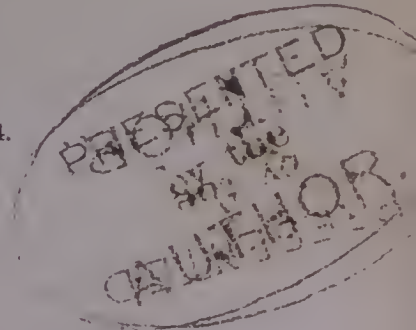
DELIVERED AT THE

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE,

BY MR. F. D. FLETCHER,

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LECTURE.

GENTLEMEN,—In accordance with our usual custom, we begin the session with an introductory lecture, not merely as a formal inauguration of the session, but as a kind of friendly greeting to those who assemble here, more especially to those students whom we now see for the first time, and to offer some hints which may be useful in the pursuit of that science in which, whether as pupils or as teachers, we are all, I hope, learners.

It is not an easy matter to find a subject for an address like the present; but, on the principle that example is better than precept, I have chosen for this lecture the LIFE OF JOHN HUNTER, thinking that if we obtain a good idea of the history of so great a man, as to what he was in himself, as to how he laboured, and what resulted from his labours, it may teach us wherein lay his great scientific strength, and how it was that he wrought those great works upon which his fame is based; and I think, that in studying the career of any man who has done really great things, whether in science or in art, or arms or commerce, in analysing the elements of his success; that, how much soever we may ascribe to the genius or to the peculiar advantages of the individual, there are still as necessary to success certain other things, not belonging only to those endowed with the gifts of genius, or the advantages of circumstance, but attainable by all; things, without which the richest genius will remain sterile, and the most favourable circumstances will serve only to render uselessness apparent, and failure disgraceful; but with which a man possessing very common place abilities, and under very adverse conditions, may gain a position of usefulness and enduring fame.

The parents of John Hunter resided on a small estate of their own, named Long Calderwood, in the parish of Kilbride, about eight miles from Glasgow. They had ten children, of whom John, the youngest, was born on the 13th or 14th of February, 1728. With regard to the other children, I may mention that Dorothea married the Rev. James Baillie, D.D., Professor of Divinity in the University of Glasgow, and became the mother of Joanna

Baillie, so well known as a poet and dramatist, and of Dr. Mathew Baillie, who as a physician and pathologist, is still better known to us. Of William, the seventh child, I must say somewhat more, as his career exercised a very important influence on that of his younger brother, John. William Hunter was born on May 23rd, 1718; his father intended him for the church, and accordingly at the age of fourteen he was sent to College at Glasgow, where he remained five years; but, having become acquainted with Dr. Cullen, he determined to devote himself to the study of medicine. Dr. Cullen, afterwards Professor of Physic in Glasgow, and then in Edinburgh, and author of the renowned system of nosology which bears his name, had at this time just commenced practice in his native place, the town of Hamilton. Under the care of this distinguished physician, William Hunter spent three years, from 1737 to 1740, when he left for Edinburgh, and there passed the winter in attending lectures, and the next year proceeded to London, where he resided with Mr. Smellie, then an apothecary, afterwards the celebrated Dr. Smellie. At this time Dr. James Douglas being engaged in a great osteological work, wanted some one to dissect for him, and finding William Hunter a good anatomist and a general scholar, as well, engaged him to reside in his house to dissect for him, and to superintend the education of his son. At the same time, William Hunter entered as surgeon's pupil at St. George's, and dissected under the directions of Dr. F. Nicholl, then the first anatomist in London. The next year (1742) his kind friend, Dr. Douglas, died, Hunter continued, however, to reside with the family, still pursuing his anatomical studies; and with a view to becoming a teacher himself, he began to collect preparations, though in this he was not encouraged by his master, Dr. Nicholls. It happened, however, that a society of naval surgeons had a room in Covent Garden, where Mr. Sharpe used to lecture to them on surgery; he resigned in 1746, and the society requested Mr. Hunter to take his place, which he did, and succeeded so well that they requested him to include anatomy in his course. On August 6th, 1747, he was admitted member of the Corporation of Surgeons, and in the Spring of 1748, made a tour through Holland to Paris. In Leyden he was introduced to Albinus, and the old Dutch professor, the best anatomist probably then living, shewed him great attention, and greatly excited his admiration by his beautifully injected preparations. In this year he was elected surgeon to the Lying-in Department of the

Middlesex Hospital. By this time he stood in high repute not only as a practitioner, but more so as being the most successful teacher of anatomy in London. And now having brought the history of the elder brother down to that point at which it becomes connected with that of the younger, we turn to our especial subject—John Hunter.

With regard to his early life, we know very little; he lost his father at the age of thirteen, from this time to his seventeenth year, all we know of him is that he was sent to school, and that he manifested a very decided preference for field sports rather than school books, the consequence being that his elementary education was somewhat scanty. In his seventeenth year we find him at Glasgow, with his brother-in-law, Mr. Buchanan, a cabinetmaker. While here it seems that he worked at cabinet making, and manifested that manual dexterity which he afterwards turned to such good account, and which is in some degree necessary to every practical surgeon or anatomist. He soon, however, returned home, and we hear nothing of him till 1748, when the rumour of William Hunter's success having reached his ears, roused in him the desire of following in the same path by which his brother was so rapidly advancing to fame and fortune. He therefore wrote to his brother offering to come up to London and act as his assistant; he received a kind reply, accepting the offer and inviting him to come. He went up to London in 1748, being then in his twentieth year. The London which attracted Hunter in 1748, was a very different town from the same place in our own time, and still more widely different from our own were the society, the politics, and the science of that day, and in order to form a just idea of the difficulties with which Hunter had to contend, and the comparatively small advantages which he enjoyed, it is necessary that we should know something of the condition of medical science, and the state of the medical profession at this time.

We may still see, on the canvas of Hogarth, the physician with his flowing wig, his gold-headed cane, his square cut coat, his ruffles, his pomposity; we may next see the apothecary, a very feeble reflex of the dignity of the physician; and, last of all, the chirurgeon, who exercised the art and mystery of "barbery," as it was then termed, as well as that of surgery. Physicians alone were the anatomists and physiologists of those days; physic had been looked on as a science, surgery more as a mechanical art, and

though in the annals of medicine the names of Harvey, Glisson, Willis, Sydenham, and Radelyffe, will ever be held in reverence, I know of no English surgeons whose works entitle them to an equal rank until we come to the names of Cheselden and Pott, both of whom taught John Hunter. Almost all the surgical works of value were originally French, and those on anatomy Dutch. Medical science in England was but in its childhood; its cherished theories were most of them unfounded, and many of them absurd—physiology was very little known, pathology almost unnoticed. What must we think of the state of medical science when we find a man like Dr. Mead, whose opinions indicate the ideas which prevailed among the most highly educated of his order, ridiculing the thought of explaining the processes which occur in the human body upon any but mechanical principles, calling it as absurd thus to account for them as to refer the movements of a watch to the operation of an acid and an alkali. Yet, in the midst of this medley of false theory and uncertain practice, some traces of order had begun to appear, some men rising above the abject reverence for the dicta of philosophers, which seems to have been one of the most besetting of literary sins in the olden time, would think for themselves, and act on their convictions, as did Dr. Radelyffe when he asserted the right of small-pox patients to fresh air, and scouted the idea of its being necessary that they should be half asphyxiated to prevent the risk of their taking cold. Men were beginning to feel the force of the Baconian axiom, "*Homo non magister sed interpres naturæ*," and in consequence began to observe the acts of nature, and sought to deduce from them the principles of that great code of laws which God has given to be observed by nature, instead of making the laws and trying to force upon themselves the belief that nature obeyed them. Doubtless one great reason why medical science had remained thus backward, was the difficulty of observing and recording facts relating to it. There was no public hospital instruction in the provinces, and very little in London; there were very few dissecting rooms, and a miserably poor supply of subjects, and those who followed practical anatomy were forced to be content with the bodies of beasts, of criminals, or corpses stolen by resurrectionists. When William Hunter studied, he attended "one of the most reputable courses of anatomy in Europe," where, says he, "I learned a good deal by my ears, but almost nothing by my eyes, and therefore hardly any thing to the purpose; the

defect was that the professor was obliged to demonstrate all the parts of the body except the bones, nerves, and vessels, upon one dead body. There was a foetus for the nerves and blood-vessels, and the operations of surgery were explained, to very little purpose indeed, upon a dog, and in the only course which I attended in London, that was by far the most reputable that was given here; the professor used only two dead bodies in his course." The idea of each student dissecting for himself, was as yet unthought of. We may judge somewhat of the style of dissection and demonstration before the time of the Hunters by the engravings of these proceedings which have come down to our time, and all present much the same aspect,—in the middle a very grave and reverend senior, with sometimes two or three more like himself, presiding over the subject, and indicating to an admiring circle of alumni some of the more evident parts of the frame—the whole looking very formal but not very instructive. The extent of the courses of lectures at this period was very meagre; at one place Mr. Bromfield taught anatomy and surgery in thirty-six lectures; at another, the whole of anatomy was taught in twenty-three; and Dr. Nicholls taught not only anatomy, but physiology, with the general principles of pathology and midwifery, in thirty-nine; and then to add to the disadvantages of medical learning, books were very scarce, very dear, and very cumbersome. Any one who looks into the portentous folios which our ancestors loved to read and gloried in writing, cannot fail to be impressed with the evidences which they present of patient and persevering labour, of immense literary research, of keen sagacity, oddly alternating with wild credulity, and with the way in which fact and fancy are blended to form and support the most fantastic theories. They call up before us the shadows of a bygone age, they shew us the student poring day and night over his books, often mystified by contradictory directions, bewildered by baseless philosophy; they shew us the alchemist blundering on from one disappointment to another, finding no philosopher's stone in his crucibles, no elixir of immortality in his alembics; the astrologer with his modicum of real sidereal knowledge, and his farrago of cabalistic nonsense; the botanist with his faith in the mystic signatures of plants; the physician, with his wondrous materia medica, including live boiled puppies, powder of human skulls, gold and silver leaf, and in fact almost every substance, active or inert, in the whole range of nature, his prescriptions boasting from ten to fifty ingredients,

and his practice, over which the laws of astrology and magic held at least divided sway with those of medicine; and, in almost all, we see the influence of two great errors—the exaggerated reverence for received ideas, and the deficient observation of facts, errors with which none strove more successfully than Hunter, who, as we shall see, could both observe for himself and think for himself.

John Hunter arrived in London a little before the commencement of his brother's Autumn course of lectures, and his first lesson in anatomy was the dissection of an uninjected arm, upon which a lecture was to be given, in this he succeeded so well, that his brother next entrusted him with the preparation of an injected one. From this time he began to study anatomy in real earnest, and by the next session he had so far advanced as to be able to take the direction of his brother's pupils in their dissections. The following summer we find him attending at the Chelsea Hospital, studying surgery under Cheselden, then the leader of the metropolitan surgeons, an accomplished gentleman, fond of architecture and poetry, a friend of Pope, a former pupil of the anatomist Cowper, a surgeon eminent in all branches of his profession, but pre-eminent as a lithotomist, for he had resented that most important operation from the hands of clever but unscrupulous empirics, who kept secret the method by which their success was attained; and he had discovered a plan of procedure so simple and so successful, that it is adopted by the greatest operators of the present day. At the Chelsea Hospital Hunter continued to study from 1749 till 1750, when Cheselden having retired, he migrated to St. Bartholomew's, where he placed himself under Percival Pott, a surgeon second only to Cheselden in his attainments, and one of the first to assert the right of nature to take her own course in all purely natural processes, and one of the first to object to the mass of useless and filthy ointments, digestives, suppuratives, sarcoties, and so forth, in which so much faith used to be placed. During the summer of '51 and part of '52, he continued his attendance at St. Bartholomew's, and in '53 he entered as gentleman commoner at St. Mary's Hall, Oxford. He took this step most likely by the advice of his brother, certainly not of his own free will, for when speaking of it he said "they wanted to make an old woman of me, or that I should stuff Latin and Greek at the University; but these schemes I cracked like so many vermin, as they came before me;" and by the next

year (1754) he was back again in London, and entered as a surgeon's pupil at St. George's Hospital, and the succeeding year was admitted as partner in his brother's lectures, and became his assistant in private practice. In 1756 Hunter was house-surgeon at St. George's, for five months only, it is said. From this time till 1759, he seems to have continued engrossed with anatomy, comparative as well as human, always on the look out for the illness and death of any of the animals in the public zoological collections, and eager to obtain rare animals living, which he presented to various menageries, reserving a sort of "post obit" claim upon them. During this period there is little doubt that though the brothers were professionally allied, they were often at variance. William Hunter had long been the first anatomist of his time, and was somewhat tenacious of his opinions, and jealous of his rights. John, though yet unknown, possessed native mental power at least equal to that of his brother, though he lacked his cultivation. Differences of opinion on scientific points would of course frequently occur, and it is very possible that the elder brother, thought the younger somewhat presumptuous, and the younger thought the elder rather arbitrary, no outward breach, however, occurred.

In 1759 John Hunter was attacked with pneumonia, which being succeeded by threatening symptoms, he relinquished his more arduous duties, and in October, 1760, received a commission in the army medical staff. In 1761, he sailed, with the armament under General Hodgson and Commodore Keppel, to Belleisle, and during the short but sanguinary siege of that place, made many useful observations on the surgery of gun-shot wounds. In 1762, we find him with the army in Spain, not devoting himself merely to military surgery, but studying the process of digestion in reptiles, and investigating the question of the faculty of hearing in fish. In 1763 he returned to England, took a house in Golden Square, and with nothing but his half-pay, began the career of a London surgeon, the first part of which is the patient waiting for patients, and so Hunter found it, for the field of surgical practice was occupied by such men as Pott, Bromfield, Sharpe, and others. His manners, too, were much more rough and ready than polite, and he vastly preferred dissecting to visiting patients; and, I fancy, regarded private practice as a sort of necessary evil, without which he could not get money to carry on his anatomical researches. No wonder, then, that his progress at first was slow.

He soon commenced lecturing to a private class on anatomy and operative surgery. He never had in this class more than twenty, but among these were Cline and Lynn, and Justamond, the elite of the profession, whose presence shews the estimation in which Hunter was already held. Still more ardently did he now study natural history; and that he might observe the habits of animals, he bought a piece of ground at Earl's Court, near Brompton, where he kept all sorts of beasts, birds, reptiles, and insects, and where he delighted to spend his evenings wandering among his favourites. Here he had a little bull given him by the Queen, which one day in a friendly encounter with his master, got him down, and might have done him some "grievous bodily harm," had he not been frightened by a servant. Here also were a couple of leopards, and on one occasion Hunter, hearing a great uproar in the yard, went out and found both of them loose, one fighting the dogs, and one escaping over the wall; without any hesitation, he seized both and hauled them off to their dens.

In 1767, he was elected Fellow of the Royal Society, and during this year ruptured his tendo achillis. This accident naturally led him to reflect on the subject of the repair of broken tendons, and he made several experiments to determine the nature of the process of reunion. The next year saw him elected surgeon to St. George's Hospital, and shortly after, a member of the Corporation of Surgeons. The appointment at St. George's was a great step gained, it at once placed him in a position where his genius had full scope, and enabled him to receive, as private pupils, young gentlemen coming from the country to complete their medical education. In 1770 he removed to Jermyn Street, and was this year joined by a pupil from Berkeley, Mr. Edward Jenner, who soon became not only a pupil but a friend, and among all the honors which John Hunter won, none I think was greater than that of being the teacher of the man who discovered vaccination.

In 1771, Hunter married Miss Home, whose father was a surgeon in Burgoyne's Regiment of Light Horse. By this time he was fast rising in public estimation; he was labouring hard at comparative anatomy and natural history, and had already laid the foundation of his museum. To quote the words of one of his bitterest enemies, "if a body were to be embalmed, John Hunter was sent for; if a virtuoso solicited a dissection or preparation, to him he applied; if any thing strange in nature occurred, the explanation of it

came from him. In these articles, whether the object arose from curiosity or admiration, for knowledge he found himself equally sought after ;" yet his income until 1774 was never more than £1000 per annum. In the spring of 1775 he suffered from an attack of the gout, accompanied by some alarming cardiac symptoms, and in the autumn of the year he gave his first course of purely surgical lectures.

According to all accounts, Hunter was not a good lecturer, he was nervous when speaking in public, his delivery was awkward, he read his lectures from a multitude of scraps of paper, which he often confused, and sometimes could not make out ; his language, though forcible, was never elegant, and sometimes coarse, yet among his hearers were almost all those who rose to surgical honours in the next generation, and I need only mention the names of Sir E. Home, Sir A. Carlisle, John Abernethy, and Sir Astley Cooper, among the number of his pupils, to shew how much modern surgery is indebted to this one man. During this period Hunter rose constantly before six, and usually worked in his dissecting room till nine o'clock, when he breakfasted ; from this till four p.m., his time was occupied for the most part by his professional avocations, and at four he dined. After dinner he usually slept for about an hour, and then spent the evening in preparing his lectures or in dictating to his assistant and amanuensis, Mr. Bell ; thus he usually continued employed till one or two in the morning, and sometimes longer in winter. Almost the only amusement in which he indulged was a ramble amongst his zoological colony at Earl's Court, where he slept, and where he spent most of the autumn months with his family.

In January 1776, he was appointed Surgeon-Extraordinary to the King. His correspondence with Jenner was kept up at this, and for a long time after, very vigorously. Jenner's letters are unfortunately lost, those of Hunter have been preserved ; they are short, plain, utterly destitute of any sentiment, but with touches of quaint humor here and there, just the letters, in fact, of a man with a great deal to do, and to whom anatomy, natural history, and surgery are all in all. There is in most an odd mingling of subjects. Jenner seems to have supplied Hunter with many specimens in natural history, and Hunter used to send Jenner things procurable in town. We find directions for the treatment of fungus, cerebri, and directions as to experiments on the temperature of animals and vegetables, requests for hedge-hogs, eels, and fossils, then something referring to pictures which he had

bought for Jenner ; then again Hunter begs for bats, for the bones of a large porpoise, and the carcase of a little one ; then complaining that the mortality among Jenner's former presents had left him "hedgehogless." Two, especially, are very characteristic, in one of which we find the beginning about hedgehogs, blackbirds, and pictures, the middle a congratulation respecting Jenner's marriage "to a young lady with considerable fortune," and the end about fossils, and a paper on lead in eyder ; and then, after a long silence on Jenner's part, during which Hunter found that his congratulations respecting the "young lady with considerable fortune" had been premature, Hunter naïvely tells his disappointed friend, that his sense of disappointment and defeat will wear out, the first the soonest, and adds, "but let her go, never mind her, I shall employ you with hedgehogs." Some time after he says he wishes Jenner would send him a whole colony, as he had "expended" all but two, and of those one was caught by a ferret and one eaten by an eagle.

In 1777 he suffered from some alarming symptoms brought on by mental anxiety, and ascribed by Jenner to angina pectoris, he, however, recovered his usual health, after spending three months at Bath. In 1778 he completed his work on the teeth, and in 1780 he sent to the Royal Society a paper in which he laid claim to the discovery of the true structure of the placenta, the credit of which had always been given to his brother, Dr. Hunter, and asserted by him as his own in books and lectures for many years. Immediately after the reading of this paper, Dr. Hunter sent a letter to the society supporting his own claim, to which John Hunter replied. Here the correspondence ended, and the paper was not published by the Royal Society. Why John Hunter should have brought up this subject twenty-five years after the transaction to which the paper referred, and to which of the brothers the honor of the discovery really belonged, it is now impossible to decide, this, however, we know, that the affair occasioned a complete cessation of friendship between the brothers till three years after, when William Hunter was dying, and John implored to be admitted to see him ; he was admitted, and continued to attend his brother till his death. Dr. Hunter's will, however, leaving the family estate to his nephew, Dr. Baillie, remained unaltered, but he, with noble generosity, ceded it to John Hunter as soon as the will was proved. Were it lawful to present the character of a great man without his faults, as well as his virtues, one would gladly pass in silence over this

painful quarrel. In this, as in almost every other disagreement, there were doubtless faults on both sides, and in this, a circumstance in itself trivial, became the occasion of strife entailing the most disastrous results on all concerned. How small the occasion of this dispute,—who should possess what little honour might arise from the fact that he first had successfully injected certain arteries and veins,—and how disastrous a result! Three years of discord between those whom natural relationship should have linked in unbroken harmony, years no doubt embittered to each by the consciousness that even if right in his claim, he was wrong in his quarrel, and that the interchange of half a dozen sentences of friendly enquiry and explanation would, no doubt, have prevented it. Offences must needs come, but with a little more forbearance how much sooner would they be appeased, if each followed the simple rule of doing to others as he would they should do to him, how could they occur at all?

In 1781 Hunter appeared as witness for the defence in the trial of Captain Donellan for the murder of Sir T. Boughton, and seems to have been the only medical witness whose evidence was given on really scientific grounds, the others being so much impressed by the force of the circumstantial evidence against the prisoner as to make them believe that the appearances they found in the body ten days after death must have been due to poison. Hunter's philosophic doubts, however, availed nothing, the judge sneered at his evidence, and the prisoner was convicted, condemned, and hung.

Hunter's fame did not remain confined to the limits of his native country, for in 1783 he was elected a member of the Royal Society of Medicine, and of the Royal Academy of Surgery in Paris; and this year he left his house in Jermyn Street, and moved to a larger one in Leicester Square, where he built a museum, a lecture-room, and a room used afterwards for the meetings of the Lyceum Medicum, a society, the first as far as I know, of its kind at which medical men met to communicate cases, and discuss medical questions. Its name was afterwards changed to that of "A Society for the Improvement of Medical and Chirurgical Knowledge."

In 1785 we may consider Hunter as having reached the height of his fame, and attained the full measure of his success. He was full of work, he fulfilled his duties at St. George's, he had a private practice which had now risen to the value of between £5,000 and £6,000 a year, and, considering the greater value represented by money at that time, this sum must have required no

little time and labour in its earning, yet during this time he prosecuted, with unwearied diligence, his studies in comparative anatomy, and his experiments with regard to the animal economy, and at the same time conducted a school of practical anatomy under his own roof. It is recorded that about this time he operated upon two formidable tumours of the neck, one of enormous size, and one involving such important parts, that one of the leading surgeons of the day declared that none but a fool or a madman would attempt its removal. What may be insane folly, however, in the hands of one ignorant of anatomy, may be very feasible in the hands of a skilful anatomist and cool operator. In both cases Hunter operated, and in both the patients did well. A far higher achievement than this, however, was his invention (Dec. 1785) of a new mode of curing aneurism, by tying the vessel between the tumor and the heart. Many a limb and many a life has been spared by this improvement in practice.

During this year (1785) his gout and the threatening symptoms about the heart recurred, but after five or six weeks at Bath he returned to town tolerably restored. In 1786 he was appointed Deputy Surgeon General to the Army, and in the same year published his work on the Venereal Disease, as well as that on the Animal Economy. In the next year he received the Copley medal of the Royal Society, and was elected a member of the American Philosophical Society. One great object of his life was now accomplished—his museum was completely arranged, and he opened it in October for the inspection of the medical profession, and in May to amateurs. About this time his portrait was painted by Sir Joshua Reynolds. Hunter was a bad sitter, and the painting had progressed nearly to completion without Sir Joshua's feeling satisfied that he had caught the real expression of the man, till one day some train of thought passing through Hunter's mind, he fell into a reverie, forgot all about his portrait, and remained some time absorbed in thought. Reynolds saw that now he had the real man before him, he quietly turned the canvas upside down, and sketched a new figure in the attitude in which Hunter then was. This picture now hangs in the library of the College of Surgeons, and in it we see a plainly dressed man, about the middle size, strongly built, rather a round head, strongly marked features, (which led Lavater to say, on looking at the portrait "that man thinks for himself,") a good forehead, prominent brows, shading his keen deep-set eyes, high cheek-bones, and a mouth rather under-hung; a face in which we can

trace the expression of thoughtfulness and power; of a mind that can design great things, and the energy and determined will that can do them.

On December 22, 1788, Percival Pott, who was the only one who could divide with Hunter the claim to be the first of the surgeons of London, died, aged seventy-five, and Hunter reigned in his stead, the acknowledged head of the metropolitan profession.

In 1789 his health again began to cause him uneasiness. In December of that year, he suffered a sudden and complete loss of memory for half an hour, and the spasmodic pain in the region of the heart, to which he had so long been subject, was now very easily induced, especially by any warmth of temper, and unfortunately he had never accustomed himself to exercise much control in this direction, and, in consequence, he often gave way to fits of passion which betrayed him into violence of language which he afterwards unavailingly regretted.

In 1792 he gave up lecturing that he might have more time for writing, and during this year received the membership of the Irish College of Surgeons, and of the Chirurgo-Physical Society of Edinburgh. This year a vacancy occurred at St. George's, for which Mr. Keate and Mr. Home, Hunter's assistant and brother-in-law, were candidates. Hunter and Dr. Baillie supported Home, all the other medical officers supported Keate, and a severe contest resulted in the election of the latter by 131 to 102, and in the establishment of a pretty decided state of hostility between Hunter and the majority of his colleagues. Not long after, Hunter announced his intention of keeping the whole of the fees of the students who entered as his pupils, instead of taking only his proportion of the sum of all the fees paid by hospital pupils, alleging, as his reason, his desire to make the other surgeons attend to their duties as well as he did to his own. Another painful contest between himself and his colleagues ensued, and terminated in the rejection of Hunter's plan by the governors of the hospital, and in the establishment of a set of rules with regard to which he was not even consulted, and one of which seemed, with a refinement of vindictiveness, to be aimed to humiliate Hunter by excluding his countrymen, who often (like himself) came up to London without any previous medical education. The new rules provided that no one should be admitted as a student without bringing certificates that he had been educated to the profession. This law had not been long in force when two young men, unaware of the restrictions on studentship, came up

from Scotland, and applied at St. George's for admission as Hunter's pupils; Hunter told them of the rules, but undertook to lay a statement of their case before the hospital board, and to press for their admission at its next meeting, on October 16th.

On the morning of that day he mentioned the circumstances to a friend, and speaking of the probability of some unpleasant dispute, said that if any occurred, he was sure it would be fatal to him. He set out that morning in his usual health and spirits, and his assistant, Mr. Clift, saw him in York Street, St. James's, and heard him order the coachman to drive to St. George's. When he arrived, he found the board assembled, and they proceeded to consider the question relative to the admission of the two pupils; a dispute soon arose between Hunter and one of his colleagues, who flatly contradicted something which he asserted. Hunter stopped speaking, rose from the table, struggling evidently with passion, which was scarcely repressible, walked hurriedly into the next room, and scarcely had he passed the threshold, when, without a struggle, without a word, and with only one deep groan, he fell into the arms of Dr. Robertson—dead. Dr. Baillie had rapidly followed him from the board-room (apprehensive, no doubt, of the impending danger), and Sir Everard Home was soon at his side, and for an hour they vainly strove to restore the life of which they hoped some spark might still remain; but the spirit had returned to Him who gave it, and John Hunter was no more.

The body was placed in a sedan chair, and the carriage, with its two black stallions, sadly followed its dead master to his house, in Leicester Square. Thus died John Hunter, in the 65th year of his age.

We have now traced, as it were, in outline, the progress of this great man from the time at which he came as a lad fresh from the hills of his native land, untaught, it is true, but full of untried strength and uncultivated power, and urged by that stern energy of purpose which has enabled so many of his countrymen successfully to compete for the richest rewards of commerce, and the highest honours of science. We have followed him through that time of toil and anxiety which all must pass, whose success depends upon themselves, to that when he was rich with the well-earned rewards of his professional skill, and honored alike by the voice of popular applause, and of scientific fame, and have seen how suddenly and how sadly that time ended; and now, we naturally ask, what results remain of the labours of such a man for five and forty years? I reply, that from 1760 to 1792, he constantly contributed

valuable papers to the Royal Society on the anatomy of rare animals; on many points of physiology and pathology; on the recovery of the drowned; on animal heat—that he communicated many papers on surgery and pathology, to the transactions of the Society for the Improvement of Medical and Chirurgical Knowledge; that he published large works on the teeth, on the venereal disease, on the animal economy, on the blood, inflammation, and gunshot wounds; that he left ten folio volumes of manuscript, nine being on animal and one on vegetable anatomy, all of which were burned by Sir Everard Home; that he delivered lectures on anatomy and surgery through a space of nearly thirty years, besides his Croonian Lectures on muscular motion; and we have a mass of effects which it needed no ordinary strength to produce; but Hunter's highest claim to our grateful homage is not founded upon these, but rather upon those unceasing labours in which he spared neither time, nor health, nor wealth, and by which he formed the Hunterian Museum, and from which, indirectly, resulted the constitution of the College of Surgeons as it now exists. Of this noble museum, unrivalled, I believe, by any similar collection, I can give no description, suffice it to say, that in one great division almost every fact relating to the science of life (so far as our knowledge goes) is illustrated by dissections of the organs by which life is sustained, and by which its functions are performed; that in the other division Hunter left more than 600 dry preparations, illustrating comparative anatomy (exclusive of stuffed animals); nearly 1000 osteological preparations, 1200 fossils, 1084 pathological preparations, and 500 calculi. This large accumulation has been much enriched by the labours of its conservators, but to Hunter, and to him alone, is due the honor of having designed and established it. To understand the consequences resulting from the existence of this museum, we must glance at its history.

Hunter died comparatively poor, and his house at Earl's Court, his library, and a great part of his household goods, and articles of virtu, were sold to pay his debts and meet current expenses. Mrs. Hunter received, for two years, a pension from Government, and some time after, she was placed beyond the reach of want by the kindness of Dr. Gartshore^h, a benevolent man, a physician of the old school, who sometimes used to attend Hunter's lectures, and, as we are informed, always wound up his watch, and then went quietly off to sleep. Hunter had directed in his will that his museum should be offered for sale to the British Government, this was done by the executors,

but the nation was then deep in war and in debt, and Pitt could not spare for preparations the money which was wanted to buy gunpowder; however, three years after, the collection was bought by Parliament for the sum of £15,000, but honorable members, with a museum on their hands, were somewhat in the predicament of the gentleman who bought an elephant, cheap, at a sale—they were rather at a loss what to do with their bargain, so it is said that they first offered it to the College of Physicians, who declined to have it unless accompanied by “material guarantees” for the expenses of its sustentation; next they offered it to the Corporation of Surgeons, who unanimously accepted it, by a vote passed December 23, 1799. In consideration of this, the Corporation of Surgeons, who from 1540 till 1745, had been united with the barbers, and from the latter date had existed as a separate corporation, received, in 1800, a charter converting them into a Royal College, and giving them the right to confer diplomas, thus putting surgical education, as regarded England, pretty much in their hands; and though much still remains to be done, there can be no doubt that the education of surgeons has been, since that time, much improved, and that how much soever we may ascribe to the efforts of other examining bodies, a large share of the credit of this improvement belongs to the Royal College of Surgeons of London.

Now let us turn to the means by which Hunter wrought out his results. He possessed, doubtless, genius of a very high order; he had immense perceptive power, he knew how to observe, and he knew what was worth observing—he could not only amass facts, but could see their relations to each other—he saw the phenomena of nature, and knew that great laws regulated them all, and he was anxious that as far as facts could prove them, these laws should be formally laid down, but he knew the danger of speculative laws, those fascinating theories of what may be, which in his time, and in our time no less, have led so many to look at facts through the medium of preconceived opinions, and to “see what they believe, rather than to believe what they see.”

How many of these have risen and floated before men's minds, and then vanished, how many exist now—but they cannot stand. We must all have seen how sometimes clouds near the horizon, will pile themselves in rugged masses so like the summits of distant mountains, that where we see the real mountain top among the clouds, the eye is puzzled at first to know which is the

real and which is only apparent, but wait a while, let the wind pass over them, and the one breaks into shapeless masses and then passes from our sight, while the other now stands out, with its bold and changeless outline, more clearly visible in the unclouded sky. So it is with error, let us wait a while, let the gale of argument pass over it, and in the end be sure that truth alone will stand.

To return from this digression. We must add to Hunter's native talents the advantage he enjoyed as his brother's pupil, and then as his assistant; but, beyond and above these, there is one other thing to which we may turn our attention, and with the more interest, because it is attainable by all—a quality without which all the talents and all the advantages of John Hunter would have been comparatively useless—I mean his constant and untiring industry. I tell you no new truth, but a very old one, when I say that “Work” is the password along all the avenues to success. We all know the saying, that a poet is born, not made, this we must precisely reverse, as regards medicine, a physician or surgeon is made, not born. To excel in medical practice, a man must have not one faculty alone highly developed, he must have many well developed and well co-ordinated; he must be able to acquire knowledge, he must know how to use it; he must have a keen eye to notice facts, a calm judgment to understand their meaning, and prompt decision to act upon his conclusions.

Now, gentlemen, we cannot decide the question as to what portion of a man's mental powers are born with him, and what parts are acquired, but of this we are certain, that no man knows his powers till he tries them, and that any talent may become feeble, and at length be lost, by neglect, while, by constant use, it will become stronger and stronger. These considerations are of great importance to you, especially at the present time; for, though the period of studentship may be said to have for its grand object the acquisition of knowledge, yet in order to do this well, all the powers of your mind must be called into action, not merely your memory, but your judgment, must be exercised. You are not asked to listen with the implicit faith of children, but with an intelligent desire to learn, and an honest determination to have a reason for all that you believe.

The importance of this time of study which you now possess, can hardly be exaggerated, for what you will be as practitioners, depends upon what you are as students. You can never again devote your whole time to study as

you can now, and though you must go on learning all your lives, if you wish to keep up with the times, there are many things which you must learn now or never. If you do not now learn the A B C of your profession, you will never know it, and without this, which requires no little work and some little drudgery at first, you can no more practice successfully than one could write a book without these first three letters of the alphabet.

Gentlemen, I congratulate you on your choice of the medical profession—a profession which you are sure to find laborious, and which I hope you may all find to be profitable—one which presents unnumbered points of interest in its learning, and, in its practice, affords ample scope for the exercise of the highest faculties of the mind, and the best feelings of our nature, which makes us the guardians of the most valuable of all earthly possessions, health and life, and thereby entails upon us responsibilities of the gravest kind; for when you take charge of a patient, you by that act make a tacit profession, at least, that you can do him good, and it therefore becomes a duty of the highest order, part of our duty to God, as well as to our fellow-man, that we should, to the utmost of our ability, qualify ourselves for such a trust.

It will often depend upon you, under Him from whom alone life proceeds, whether disease shall run its course unchecked, or whether by timely aid its progress shall be arrested and its effects averted—it may depend on you whether the deformed child shall grow up a helpless, hideous cripple, or whether his distorted limbs shall be set free to gain their normal development, and perform their appointed purpose—whether the eye which disease has darkened shall remain so or be gladdened by the return of sight. It will depend often on you to track pestilence to its lair, to see whence its springs, and how it is fed—to teach men how important and how simple, are the means of prevention, how far more more easy than the means of cure.

Do not think that I magnify too greatly the dignity of our profession; I know that we must practice it not merely for its sake, but for our own—not only because we like it, but because we must live by it; but be assured of this, that the higher are the motives which urge us onwards in our study or in our practice, the better will be the result. Admiration of medicine, as a science alone, would in most men soon fail before the toil and responsibility of actual practice; the desire of profit alone, might urge a man through the labours of his profession, but is not likely to win for him its best rewards.

but if to the love of his profession, and to the wholesome stimulus of necessity, and the lawful hope of gain, you add a desire to benefit mankind, a desire to obey Him who said, "as ye would that men should do to you, do ye even so to them," by making yourself as highly qualified as you would wish a man to be who should undertake your cure if you were ill—then I believe you possess a power which is the first preliminary to success, and the surest pledge of its attainment.

In conclusion, gentlemen, I have thus tried to shew you the likeness of the greatest philosopher who has arisen in modern times among the medical men of Britain, and to explain what he did and how he worked, and though the vastness of his more than herculean labours may make us look back upon him with feelings akin to those which men of old must have experienced when they looked on past ages and remembered that "there were giants in those days:" though he uprooted so many errors, and sowed the seed of so much truth, the field in which he laboured is one to which we see no limits. in it there are still plenty of errors to be demolished, and an infinity of truths to be sought, and where he did so much, let us do what we can, however little that may be, to follow his laborious footsteps in the pursuit of knowledge, urged, as he was, by the love of science—guided, as he was, by the love of truth.

I have but imperfectly performed the duty allotted to me, but whatever may be wanting in this address, it will not have failed in its purpose if it has given you any useful information respecting the history of John Hunter, if it has inspired any reverence for his memory, or excited any desire to follow his example.

